Information Systems and Computer Applications

Description of the Examination

The Information Systems and Computer Applications exam covers material that is usually taught in an introductory college-level business course. Questions on the exam are about equally divided between those testing knowledge of terminology and basic concepts and those asking students to apply that knowledge. Although the exam assumes a general familiarity with information systems and computer applications, it does not emphasize the details of hardware design, language-specific programming techniques, or specific application packages. There are occasional references to applications such as word processing, spreadsheets, and data management, but questions that involve these applications do not draw heavily on one's knowledge of a specific product. Rather, the focus is on concepts and techniques applicable to a variety of products and environments. The exam contains approximately 100 multiple-choice questions to be answered in two separately timed 45-minute sections.

Knowledge and Skills Required

Questions on the exam require candidates to demonstrate the following abilities in the approximate proportions indicated. A single question may require both abilities.

Knowledge of terminology and basic concepts (about 50 percent of the exam)

Application of knowledge (about 50 percent of the exam)

The subject matter of the Information Systems and Computer Applications exam is drawn from the following topics.

Approximate Percent of Examination	
15%	Computer Hardware and Its Functions
10%	Computer Software
15%	System Development Life Cycle
5%	Computer Programming
10%	Data Management
10%	Telecommunications
20%	Organizational and User Support Systems
10%	Information Processing Management
5%	Social and Ethical Issues (economic, privacy, security, legal)

Approximate Percent of Examination 15% Computer Hardware and Its Functions

Processing, storage, and I/O devices

Data concepts and representation

10% Computer Software

Systems software

Programming languages
Standards

15% System Development Life Cycle

System development life cycle methodologies
Analysis/design tools and techniques

5% Computer Programming

Program life cycle (analysis, design, coding, testing)
Program design tools
Programming logic (sequence, selection, repetition, case)

10% Data Management

File organization (direct, sequential, indexed)
Database concepts and models (hierarchical, network, relational)

10% Telecommunications

Equipment and its functions
Networks

20% Organizational and User Support Systems:

Concepts and Applications
Design support systems
Artificial intelligence and expert systems
Office systems (conferencing, voice mail, fax, electronic mail)
End-user applications (word processing, spreadsheet, data management, graphics)

10% Information Processing Management

Types of information processing (batch, real-time, transaction)
Controls in information processing (I/O, security, backup, recovery)
Information processing careers

5% Social and Ethical Issues (economic, privacy, security, legal)

Study Resources

If you plan to obtain credit at a particular institution, check the textbooks that are currently being used in the relevant course; the exam is likely to be reasonably consistent with introductory information processing textbooks at most institutions. If you plan to prepare for the exam and have no specific institution in mind, visit a college bookstore and select a textbook from each of the two categories listed below.

- textbooks that deal with general computer concepts and applications software.
- textbooks that focus on information processing.

When selecting a textbook, you should also check the table of contents against the "Knowledge and Skills Required" section. The Internet is another resource you could explore.